Recombinant KCIP2 protein (His tag)

Catalog Number	541350
Synonyms	Cardiac voltage-gated potassium channel modulatory subunit; Kv channel-interacting protein 2; KChIP2; Potassium channel-interacting protein 2
Species	Human
Expression System	E. coli
Accession	Q9NS61
Molecular Weight	Predictes a molecular mass of 22.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	92-270
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 92-270 aa (Q9NS61) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human KCNIP2 Fragment (aa 92-270) - A high-purity protein fragment encompassing EF-hand domains 2, 3, and 4 of the cardiac voltage-gated potassium channel modulatory subunit. This specialized fragment serves as an essential tool for investigating calcium-dependent modulation of Kv4/D-type potassium channels in cardiac electrophysiology research. KCNIP2 (Kv channel-interacting protein 2) functions as a critical regulatory subunit of Kv4/D-type voltage-gated rapidly inactivating A-type potassium channels. This protein modulates channel density, inactivation kinetics, and recovery rates from inactivation in a calcium-dependent and isoform-specific manner. It plays a vital role in trafficking KCND2 and KCND3 channels to the cell surface and is essential for the expression of I(To) currents in the heart. The full-length protein localizes to the cell membrane via lipid-anchoring and is detected on lipid rafts, highlighting its importance in cardiac electrical signaling and potential implications in cardiac arrhythmia research.